

B<sup>4</sup> 19. (twice amended) An immunological reagent, comprising a protein, [or variant] or fragment thereof, as described in claim 1, which is bound to a support or provided with a detectable label.

#### REMARKS

Claims 1, 3 - 6 and 19 are amended hereby. Claims 1 - 15, 18, 19 and 21 - 32 are currently pending, with claims 1 - 5, 12 - 15, 19, 27, 28, 30 and 32 currently under consideration.

Applicants affirm their election of Group I, claims 1 - 5, 12 - 15, 19, 27, 28, 30 and 32.

Regarding the issue of priority stated in paragraph 3 of the Office Action, it is not proper to reference the priority claim in the specification. Rather, it is continuing (divisionals, continuations) US applications that are referenced in the continuity statement at the beginning of the specification. The priority information is printed on the front of the patent. Therefore, no amendment to insert this material has been made. However, a valid claim for priority has been made and Applicants do not relinquish that claim. If this objection is maintained, it is courteously requested that a cite to the statutes or rules be given to Applicants.

Claims 1 - 5, 12 - 15, 19, 27, 28, 30 and 32 were rejected under 35 USC 112, first paragraph, for alleged nonenablement. It appears to be the Examiner's position that "variants" of the protein are not specifically supported by the disclosure. [This terminology has been deleted from the claims under consideration, it being understood that the claims as they stand include natural variants. Accordingly, this rejection should be withdrawn.

Claims 1 - 5, 12 - 15, 19, 27, 28, 30 and 32 were rejected under 35 USC 112, second paragraph, for indefiniteness. This rejection is respectfully traversed.

μ The specification has been amended to insert the generic terminology for "Triton X-114" and "Quil A". A search of the PTO database of patent claims reveals numerous hits of patents with the "Triton" and "SDS-PAGE" terminology. "SDS-PAGE" is just an acronym for "sodium dodecylsulfate-polyacrylamide gel electrophoresis", and common terminology in the field. Therefore, it is not believed that the terminology renders the claims indefinite. Reconsideration and withdrawal are respectfully requested.

Claims 1 - 5, 12 - 15, 19, 27, 28, 30 and 32 were rejected under 102(e) over Vermeulen '289. This rejection is respectfully traversed.

The Examiner is incorrect in stating that Vermeulen discloses an about 20kD protein which is present in the hydrophilic phase of a Triton X-114 extract. In fact, at col. 17, lines 1 - 10, it is stated that (1) relative molecular weights are determined under *non-reducing* conditions and (2) Eam20 is absent in the hydrophilic fraction.

Further, at col. 3 of Vermeulen, it is stated:

"The Eimeria antigens disclosed above can be characterized by their isolation procedure, i.e. the antigens are obtainable by:

1) extracting *Eimeria acervulina* parasites with a 2% Triton X114 solution.

2) Applying the hydrophobic fraction obtained after phase separation from step 1 to

1. E.acer 10C-2A Sepharose CL-4B bound immunoaffinity chromatography or

2. E. acer 10E-2 Sepharose CL-4B bound immunoaffinity chromatography."

As can be seen at col. 4, lines 23 - 25, the protein Eam 20, which it appears the Examiner believes shows overlap with one of the proteins of the present invention, is the one that specifically binds to antibody E.acer 10E-2. Therefore, protein Eam20 is obtainable from the hydrophobic fraction of a Triton X114 extract.


In conclusion, a Triton X114 extract has two fractions: the hydrophobic and the hydrophilic fractions. The Vermeulen '289 invention relates to an "about 20kD" protein found in the hydrophobic fraction of a Triton X114 extract. Therefore, it is not possible that the presently claimed proteins and those of Vermeulen '289 are the same.

Reconsideration and withdrawal of the 102(e) rejection are deemed proper.

It is believed that this application is in condition for allowance. Should the Examiner believe any issues remain that could be resolved by phone, he is invited to contact the undersigned at the number listed below.

In the event any fees are required with this paper, please charge our Deposit Account No. 02-2334.

Respectfully submitted,

  
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